

TROPICAL RAINFALL MEASURING MISSION

August 7, 2000 - August 13, 2000

DOY 220 - 226

Day of Mission 976 - 982

TRMM MISSION OPERATIONS

- TRMM is flying in the +X Forward direction as of July 19th (00-201), at 18:30:41z.
- Yaw maneuver #45 is scheduled for August 18th (00-231).
- Delta-V maneuver #218 is scheduled for August 15th (00-228), using the LBS thrusters.
- The Beta angle range for 00-227 through 00-233 is +23.6° to -5.1°.
- The next Monthly Status Review is scheduled for September 6th (00-250).
- The next CCB meeting is scheduled for August 28th (00-241).
- The next EOL Planning meeting is scheduled for August 30th (00-243)
- There are 148 days remaining until Extended Mission science operations begin (1/1/2001).

TRMM SUBSYSTEM OPERATIONS

Attitude Control System (ACS)

00-221 (Tuesday, August 8th)

Delta-V maneuver #216 was successfully conducted at 15:24:00z and 16:09:43z for durations of 39.625 and 28.375 seconds respectively, using the LBS thrusters. The off-modulation of the -Yaw thruster (#1) for burn 1 was 3.5% (96.5% on time). The off-modulation of the +Pitch thruster (#2) for burns 1 and 2 was 25.6% and 24.3% (74.4% and 75.7% on time). The remaining fuel is 545.172 kg, and the final apogee and perigee height is 354.83 km x 347.57 km.

00-225 (Saturday, August 12th)

Delta-V maneuver #217 was successfully conducted at 15:15:23z and 16:01:12z for durations of 49.125 and 19.750 seconds respectively, using the LBS thrusters. The off-modulation of the -Yaw thruster (#1) for burn 1 was 7.4% (92.6% on time). The off-modulation of the +Pitch thruster (#2) for burns 1 and 2 was 27.3% and 19.8% (72.7% and 82.2% on time). The remaining fuel is 543.539 kg, and the final apogee and perigee height is 354.43 km x 347.29 km.

Flight Data System (FDS) / Command & Data Handling (C&DH)

The UTCF remains at 31535996.841932 seconds. The frequency standard drift rate is -1.5787 μ s/hr. The current drift value is -583.0 μ s.

An EDAC multi-bit error occurred on 00-220 at 04:05:12z.

Q-channel restarts occurred on 00-221 at 15:21:01z, on 00-222 at 17:56:15z and 18:01:53z, on 00-223 at 05:37:25z and 21:44:18z, and 00-224 at 19:00:12z.

00-223 (Thursday, August 10th)

New Spacecraft Loadshed scenarios were copied to EEPROM (S/C SCP Tables 2, 3, 13, 14 and 15, S/C System Table 21, CR#354), to reduce recovery steps in the event of a microprocessor cold start.

Reaction Control Subsystem (RCS)

The RCS subsystem performed nominally during this period. See the ACS section for specific Delta-V information.

Power Subsystem

The Power subsystem operated nominally during this period.

Electrical Subsystem

The Electrical subsystem operated nominally during this period.

Thermal Subsystem

The Thermal subsystem operated nominally during this period.

Deployables Subsystem

The Deployables subsystem performed nominally during this period.

RF/Communications Subsystem

The RF/Communications subsystem performed nominally during this period.

SPACECRAFT INSTRUMENTS

CERES

The CERES instrument remains in Diagnostic Mode following the DAP microprocessor telemetry dropout which was reported in June (AR #82). Assessment continues as to the instrument state of health and there was no additional commanding performed during this time period.

LIS

LIS performed nominally during this time period.

PR

PR performed nominally during this time period.

The list of Internal Calibration times over Australia in which PR was not radiating is below:

2000/220:05:38:03 - 05:40:15z
2000/220:21:57:14 - 22:00:28z
2000/221:04:26:29 - 04:27:49z
2000/221:06:00:31 - 06:02:39z
2000/222:04:49:03 - 04:51:13z
2000/222:21:06:57 - 21:12:03z
2000/223:05:12:03 - 05:14:01z
2000/224:04:00:24 - 04:02:33z
2000/224:20:18:25 - 20:22:31z
2000/225:02:48:45 - 02:50:59z
2000/226:03:11:18 - 03:13:26z

TMI

TMI performed nominally during this time period.

VIRS

VIRS performed nominally during this time period.

GROUND SYSTEM

00-224 (Friday, August 12th)

Tr2ws1 and tr2xt1 failed about fifteen minutes before an event, at approximately 22:12z (ER#193). All attempts to recycle power failed, and hardware maintenance was notified of the failure. The power supply was the cause of the failure, and was replaced. String 3 was used for backup operations, until the power supply was replaced. By 00-225-04:00:00z string 2 was returned to operational status.

Event Reports

ER#193: MOC W/S crash resulting from power supply failure. The power supply was replaced and there was no impact to operations, other than using string 3 as the backup temporarily, since the failure occurred on the backup string.

Generic Late Acquisition Reports (for TTRs 19639)

00-223 (Thursday, August 11th)

GLR#66: 00-223 on the 171/23:14z event the MOC acquired on telemetry at 23:16:47z, 2 min. and 17 sec late. No impact on Data Storage.

New Anomaly Reports

No new Anomaly Reports were generated during this period.

Recurring Open Anomaly Reports

No Open Anomalies were observed during this period.

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